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APPLICATION NUMBER	FILING DATE	FIRST NAMED APPLICANT	ATTY. DOCKET NO.
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09/130,818 08/07/98 TANAKA

Y 5702D-6844

EXAMINER

TM02/0514

LOEB & LOEB  
10100 SANTA MONICA BLVD  
SUITE 2200  
LOS ANGELES CA 90067-4164

ROBERTSON, J. PAPER NUMBER

2187  
DATE MAILED:

05/14/01

This is a communication from the examiner in charge of your application.  
COMMISSIONER OF PATENTS AND TRADEMARKS

OFFICE ACTION SUMMARY

☒ Responsive to communication(s) filed on 3/26/01

☒ This action is FINAL.

☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 D.C. 11; 453 O.G. 213.

A shortened statutory period for response to this action is set to expire 3 month(s), or thirty days, whichever is longer, from the mailing date of this communication. Failure to respond within the period for response will cause the application to become abandoned. (35 U.S.C. § 133). Extensions of time may be obtained under the provisions of 37 CFR 1.136(a).

Disposition of Claims

- ☒ Claim(s) 1-10, 13-17 & 19-22 is/are pending in the application.  
Of the above, claim(s) 1-9, 13-16 & 22 is/are withdrawn from consideration.  
☐ Claim(s) \_\_\_\_\_ is/are allowed.  
☒ Claim(s) 10, 17 & 19-21 is/are rejected.  
☐ Claim(s) \_\_\_\_\_ is/are objected to.  
☐ Claim(s) \_\_\_\_\_ are subject to restriction or election requirement.

Application Papers

- ☐ See the attached Notice of Draftsperson's Patent Drawing Review, PTO-948.  
☒ The drawing(s) filed on 8/7/98 & 3/26/01 is/are objected to by the Examiner. and  
☒ The proposed drawing correction, filed on 3/26/01 is ☒ approved ☒ disapproved.  
☒ The specification is objected to by the Examiner.  
☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. § 119

☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d).

☒ All ☐ Some\* ☐ None of the CERTIFIED copies of the priority documents have been

☒ received.

☐ received in Application No. (Series Code/Serial Number) \_\_\_\_\_

☐ received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

\*Certified copies not received: \_\_\_\_\_

☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e).

Attachment(s)

☒ Notice of Reference Cited, PTO-892

☐ Information Disclosure Statement(s), PTO-1449, Paper No(s) \_\_\_\_\_

☐ Interview Summary, PTO-413

☐ Notice of Draftsperson's Patent Drawing Review, PTO-948

☐ Notice of Informal Patent Application, PTO-152

-SEE OFFICE ACTION ON THE FOLLOWING PAGES-

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This Office action is in response to the amendment filed March 26, 2001.

The proposed drawing corrections have been received. All have been approved by the examiner with the exception of the changes to figures 5, 17 and 18. With respect to figure 5, note that across the top of the figure it indicates byte addresses 0 to 511 in the data area. This is consistent with the specification. However, the text in the data block of physical block 0, page 0 reads "(256 bytes)" which appears to be incorrect. With respect to figures 17 and 18, note the objection to their description in the previous Office action (see comment re page 10, lines 6-17).

Additionally, proposed drawing corrections are to be made in a *separate* letter to the Office draftsman, see 37 C.F.R. § 1.121.

The substitute specification filed March 26, 2001 is noted, but it has not been entered. The substitute specification is replete with deficiencies, for example:

Page 1, line 24, "is a minimum unit when data are erased" is still deficient.

Page 2, lines 11-12, the meaning of "The data of a User Data Area are..." is still not clear.

Page 2, lines 13-14 are still not understood; why would someone cause "potentially erroneous data" to be written?

Page 2, lines 17+, "When the block has '0's of two bits or more,..." is technically incorrect.

Page 2, lines 21-22, "Furthermore, since 8 sectors forming one logical block correspond to one of 512 physical blocks, the same values for all the data are written", while amended, remains idiomatically deficient, and is not understood.

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Page 2, line 29, note "minimum unit of erase" had been objected to as being deficient in the previous Office action (see comment re page 1, line 26).

Page 3, lines 5-8 are inscrutable.

Page 3, line 31-32 had been objected to in the previous Office action, but have not been modified (see comment re page 4, lines 7-8).

Page 4, lines 8-9 had been objected to in the previous Office action, but have not been modified (see comment re page 4, lines 19-22).

Page 5, lines 2-6 had been objected to in the previous Office action, but have not been modified (see comment re page 5, lines 18-23).

Page 6, lines 19-20 had been objected to in the previous Office action, but have not been modified (see comment re page 6, lines 3-4).

Page 6, lines 25-27 had been objected to in the previous Office action, but remains technically incorrect (see comment re page 6, lines 11-12).

Page 6, line 26, etc., had been objected to in the previous Office action, but have not been modified (see comment re page 7, line 19).

Page 9, lines 6-14 had been objected to in the previous Office action, but remains inscrutable (see comment re page 10, lines 6-17). While minor grammatical changes have been made, it still does not explain the significance of figures 17 and 18.

Additionally, there exist numerous deficiencies in the pages following those discussed in the previous Office action that have not been adequately corrected (e.g., compare page 18, lines

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24-25 with comments re page2, lines 15-16, etc.). Furthermore, while applicants have submitted version with markings to show changes, said version is incomplete. Nowhere does the marked version indicate that the sections labeled "Summary of the Invention" and "Brief Description of the Drawings" have been deleted, yet these sections are not in either version of the substitute specification as submitted, thus the submission is *prima facie* improper. Further, the specification *should* include a "Brief summary of the invention" as well as a "Brief description of the several views of the drawing", see 37 C.F.R. § 1.77. While applicants complain that the changes to the specification were "at considerable expense", it does not appear that much effort has been put into it.

Should applicants decide to continue prosecution of the present application, appropriate correction of the specification will still be required. However, due to the changes in 37 C.F.R. § 1.121, a substitute specification is no longer required by the examiner.

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless --

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are

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such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(f) or (g) prior art under 35 U.S.C. 103(a).

Claims 10, 17, 19 and 20 are rejected under 35 U.S.C. 102(e) as being anticipated by Shinohara. The Shinohara reference teaches a method for controlling a memory where the memory includes logical blocks managed by the system (see Abstract), physical blocks for storing data (see figure 3, "Sector Data 1", "Sector Data 2", etc.) and redundant divisions included in corresponding physical blocks storing addresses (see figure 3, "Sector ID 1", "Sector ID 2", etc.). The reference further teaches physical block areas formed of at least two physical blocks (see figure 3, "Block ID"). The reference also teaches that the logical to physical translation table (see figure 2) manages corresponding relationships between the logical blocks and physical block areas (e.g., "Block ID") (claims 10 and 19). The logical to physical translation table is formed and managed in accordance with accesses from a host (see figure 6) (incremental material of claims 17 and 20).

Claim 21 is rejected under 35 U.S.C. 103(a) as being unpatentable over Shinohara in view of applicants' admitted prior art. The Shinohara reference has been discussed above. It does not discuss replacing "defective" physical blocks (though it does discuss managing "spare" blocks). Applicants' admitted prior art includes a marker to identify the status of a block (see figure 5,

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block status area, byte 261). The admitted prior art clearly managed the defective blocks as claimed. Since it was known for blocks to be defective, either from manufacturing defects or subsequent failure, it would have been obvious to apply the admitted prior art defect managing function to the memory system of Shinohara to provide for proper extended operation even when a number of blocks are defective, as was known to be desirable.

Applicant's arguments with respect to claims 10, 17, and 19-21 have been considered but are moot in view of the new grounds of rejection. Furthermore, the applied reference operates in exactly the manner described in the arguments, i.e., the translation table directs the request to a block (e.g., a physical block area) whereupon a search of the sectors in that block must be made to determine which sector is the desired one (see steps 17-21 of figure 5).

**THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.

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**Any response to this final action should be mailed to:**

**Box AF**  
Commissioner of Patents and Trademarks  
Washington, D.C. 20231

**or faxed to:**

(703) 308-9051, (for formal communications; please mark "EXPEDITED  
PROCEDURE")

**Or:**

(703) 305-9731 (for informal or draft communications, please label  
"PROPOSED" or "DRAFT")

Hand-delivered responses should be brought to Crystal Park II, 2121 Crystal Drive,  
Arlington, VA., Sixth Floor (Receptionist).

Any inquiry of a general nature or relating to the status of this application should be  
directed to the technology center receptionist whose telephone number is **(703) 305-3900**.

Direct any inquiries concerning drawing review to the Drawing Review Branch (703) 305-  
8404.

Any inquiry concerning this communication or earlier communications from the  
examiner should be directed to David L. Robertson whose telephone number is (703) 305-  
3825.

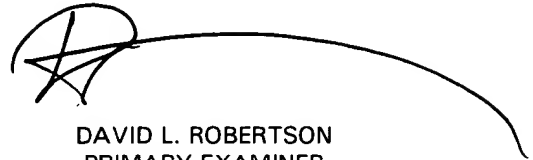
If attempts to reach the examiner by telephone are unsuccessful, the examiner's  
supervisor, Do Yoo, can be reached at 308-4908. **The fax number for this Technology  
Center is (703) 308-6306.**

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Communications which are not application specific may also be posted on e-mail at  
*David.Robertson@USPTO.gov*.

A handwritten signature in black ink, consisting of a stylized 'D' followed by a long horizontal stroke that curves upwards at the end.

DAVID L. ROBERTSON  
PRIMARY EXAMINER  
ART UNIT 2187

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May 11, 2001